

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Achillea millefolium*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	(-)-BETONICINE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
67	1,8-CINEOLE	Leaf	24.0	1680.0	-0.31413337784745815	--
1	ACHILLEINE	Plant				--
2	ACHILLIN	Plant				--
1	ACONITIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
11	ADENINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
1	ALLO-OCIMENE	Leaf	4.0	140.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
20	ALPHA-BISABOLOL	Leaf	1.0	915.0	1.264865272094972	--
3	ALPHA-CADINOL	Leaf	1.0	15.0	0.03356316627597684	--
3	ALPHA-CURCUMENE	Leaf				--
2	ALPHA-HUMULENE	Leaf				--
4	ALPHA-PEROXYACHIFOLIDE	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
11	ALPHA-PHELLANDRENE	Leaf				--
28	ALPHA-PINENE	Leaf	1.0	1000.0	-0.15961997585151536	--
13	ALPHA-TERPINENE	Leaf	2.0	1120.0	0.2663807470003411	--
23	ALPHA-TERPINEOL	Leaf	1.0	80.0	-0.4498172854768475	--
6	ALPHA-THUJONE	Leaf	3.0	240.0	-0.5168544216563907	--
6	ALPHA-THUJONE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	ALUMINUM	Plant	6.0	34.0	-0.6894552686751528	--
2	ANACYCLIN	Root				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
101	APIGENIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	APIGENIN-7-O-GLUCOSIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	ASCARIDOLE	Leaf	120.0	6600.0	-0.3837260705884196	--
112	ASCORBIC-ACID	Leaf	580.0	3100.0	-0.15627959906914124	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
112	ASCORBIC-ACID	Plant	119.0	672.0	-0.4359276103428388	--
2	ASPARAGINE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
10	AZULENE	Leaf	0.0	8000.0		--
53	BETA-CAROTENE	Plant				--
5	BETA-ELEMENE	Leaf				--
13	BETA-PINENE	Leaf	1.0	720.0	0.6328642794210592	--
47	BETA-SITOSTEROL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
5	BETA-THUJONE	Leaf	1.0	30.0	-0.5791445507936085	--
14	BETAINE	Plant				Wealth of India.
2	BETONICINE	Plant				Wealth of India.
35	BORNEOL	Leaf	6.0	275.0	-0.1351054728581718	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	BORNYL-ACETATE	Plant		50.0	-0.43702890811674244	--
6	BUTYRIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
102	CAFFEIC-ACID	Plant				--
28	CALCIUM	Plant	1535.0	8670.0	-0.5262108144941796	--
9	CAMPHENE	Leaf	2.0	600.0	0.03409920562522311	--
41	CAMPHOR	Leaf	20.0	2880.0	-0.18433975802654748	--
2	CAPRYLIC-ACID-METHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
37	CARVACROL	Leaf				--
31	CARYOPHYLLENE	Leaf	4.0	160.0	-0.5782062507598946	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
6	CASTICIN	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
10	CHAMAZULENE	Plant	0.0	4845.0		--
77	CHLOROGENIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
20	CHOLINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
24	CHROMIUM	Plant	0.4	2.5	-0.6300345087929166	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	CIS-DEHYDROMATRICARIA-ESTER	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	COBALT	Plant	0.6	3.1	-0.37614265145342984	--
1	COPAENE	Leaf	1.5	60.0	1.1888404716143406	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
4	COSMOSIIN	Plant				Wealth of India.
10	CUMINALDEHYDE	Leaf	0.3	11.0	-0.8843635097531161	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	DELTA-CADINENE	Leaf	0.2	8.0	-0.4292576505663304	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	DEXTROSE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
2	DULCITOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
13	EUCALYPTOL	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
76	EUGENOL	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
2	FARNESENE	Plant				--
61	FERULIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.

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15	FIBER	Plant	69000.0	201000.0	-0.16122268403058113	--
15	FOLACIN	Plant				--
23	FOLIC-ACID	Leaf				Wealth of India.
13	FORMIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	FURFURAL	Plant				--
1	FURFURYL-ALCOHOL	Plant				--
1	GALACTOSE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
62	GALLIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
11	GAMMA-TERPINENE	Leaf	9.0	370.0	0.34147926512769305	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	GERANIAL	Leaf	1.0	50.0	-0.3978078018016716	--
5	GERANYL-ACETATE	Plant		36.0	-0.5241410325713916	--
2	GERMACRENE-D	Leaf				--
7	GLUCOSE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
8	GLUTAMIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
12	GLYCINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	GUAIAZULENE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
7	HISTIDINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
2	HUMULENE	Leaf	0.5	22.0	-0.3745832187878271	--
32	HYDROQUINONE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
8	INOSITOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
19	INULIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	IRON	Plant				--
7	ISOBORNEOL	Leaf	5.0	320.0	-0.49513094589241385	--
3	ISOBUTYL-ACETATE	Plant				--
11	ISORHAMNETIN	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
5	ISOVALERIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
60	LIMONENE	Leaf	1.0	170.0	-0.268944101986277	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
53	LINALOOL	Leaf	1.0	4000.0	2.122508536493081	--
27	LINOLEIC-ACID	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	LINOLENIC-ACID-METHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
78	LUTEOLIN	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
7	LUTEOLIN-7-GLUCOSIDE	Plant				--
2	LUTEOLIN-7-O-GLUCOSIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	LYSINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
65	MAGNESIUM	Plant	340.0	1920.0	-0.6662824225194472	--
2	MALTOSE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
4	MANDELIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
14	MANGANESE	Plant	1.0	5.0	-0.6590690061822261	--

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18	MANNITOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
63	MENTHOL	Plant				--
22	MYRCENE	Leaf	0.5	20.0	-0.1654584943659963	--
6	MYRISTIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	NERYL-ACETATE	Plant		28.0	-0.5370290118452437	--
39	NIACIN	Plant				--
18	OLEIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
16	P-CYMENE	Leaf	9.0	1185.0	0.584380733883737	--
13	PALMITIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	PALMITIC-ACID-ETHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
26	PHENOL	Plant		155.0	-1.0	--
8	PHLOROGLUCINOL	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
4	PHOSPHORUS	Plant	522.0	2950.0	-0.3068982377399405	--
3	PONTICAEOXIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	POTASSIUM	Plant	3151.0	17800.0	-0.278763301762186	--

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43	PROTOCATECHUIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
2	PRUNASIN	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
12	PYROCATECHOL	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
176	QUERCETIN	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
44	QUERCITRIN	Plant				--
15	RIBOFLAVIN	Plant	1.0	5.6	-0.40499841324824026	--
87	RUTIN	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
5	SABINENE	Leaf	1.0	1225.0	0.5192871434052357	--
34	SALICYLIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
5	SAPONINS	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
60	SELENIUM	Plant	0.3	1.6	-0.35611748372726487	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	SILICON	Plant	1.0	4.5	-0.5190064670266766	--
1	SODIUM	Plant	15.0	82.0	-0.2995388449907829	--
6	STACHYDRINE	Plant				--
8	STEARIC-ACID	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
12	STIGMASTEROL	Plant				--
7	SUCCINIC-ACID	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
7	SUCCINIC-ACID	Plant				--
14	SUCROSE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
3	SWERTISIN	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
41	TANNIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
35	TANNIN	Plant	28000.0	40000.0	-0.6370616203493836	--
23	TERPINEN-4-OL	Leaf	3.0	175.0	-0.24039913557404782	--
18	TERPINEOL	Plant				--
9	TERPINOLENE	Leaf	1.0	50.0	-0.1684008925639172	--
31	THIAMIN	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
17	THUJONE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
71	THYMOL	Leaf	1.0	15.0	-0.41187649807173515	--
4	TIN	Plant	5.0	26.0	0.34911685139896836	--
1	TRANS-CARVEOL	Plant		150.0	1.4141140551271352	--
2	TRANS-DEHYDROMATRICARIA-ESTER	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	TRIGONELLINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
2	UNDECYLENIC-ACID-METHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
24	VANILLIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
77	ZINC	Plant				--